

**HIKVISION**



## Dual-Lens People Counting Camera

Quick Start Guide

**UD03719B**

### **Quick Start Guide**

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#### **About this Manual**

This manual is applicable to Dual-Lens People Counting Network Camera.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (<http://overseas.hikvision.com/en/>).

Please use this user manual under the guidance of professionals.

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## Regulatory Information

### FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC compliance:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

### EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: [www.recyclethis.info](http://www.recyclethis.info)



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your

supplier or to a designated collection point. For more information see: [www.recyclethis.info](http://www.recyclethis.info)

### Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (B)/NMB-3(B) standards requirements.



### Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into “Warnings” and “Cautions”

**Warnings:** Serious injury or death may occur if any of the warnings are neglected.

**Cautions:** Injury or equipment damage may occur if any of the cautions are neglected.

	
<b>Warnings</b> Follow these safeguards to prevent serious injury or death.	<b>Cautions</b> Follow these precautions to prevent potential injury or material damage.



#### Warnings

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket. When the product is mounted on wall or ceiling, the device shall be firmly fixed.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.



### **Cautions**

- Make sure the power supply voltage is correct before using the camera.
- Do not drop the camera or subject it to physical shock.
- Do not touch sensor modules with fingers. If cleaning is necessary, use clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period, please replace the lens cap to protect the sensor from dirt.
- Do not aim the camera at the sun or extra bright places. Blooming or smearing may occur otherwise (which is not a

malfunction), and affect the endurance of sensor at the same time.

- The sensor may be burned out by a laser beam, so when any laser equipment is in using, make sure that the surface of sensor will not be exposed to the laser beam.
- Do not place the camera in extremely hot, cold (the operating temperature shall be  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  for indoor cameras, and  $-30^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  for outdoor and mobile cameras), dusty or damp locations, and do not expose it to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required for operating environment.
- Keep the camera away from liquid while in use.
- While in delivery, the camera shall be packed in its original packing, or packing of the same texture.
- Regular part replacement: a few parts (e.g. electrolytic capacitor) of the equipment shall be replaced regularly according to their average enduring time. The average time varies because of differences between operating environment and using history, so regular checking is recommended for all the users. Please contact with your dealer for more details.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to



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disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

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# 1 Appearance Description

There are three types of dual-lens people counting camera for indoor, outdoor and mobile scenarios.

## **Attention!**

Disassembling the camera without professional technical instruction may affect the accuracy of people counting function. Contact the technical support for repair if any malfunction happens.

## 1.1 Type I Camera for Indoor Scenario

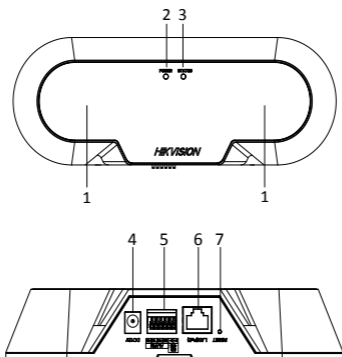


Figure 1-1 Overview of Type I Camera

Table 1-1 Description of Type I Camera

No.	Description	
1	Lens	
2	Power indicator	Solid red: working properly
		Off: power supply abnormal
3	Status indicator	Solid blue: working properly
		Flashing red: network connection abnormal
		Flashing blue: other exceptions
4	Power supply interface (12 VDC)	
5	RS-485 and alarm I/O interface	
6	Network interface (support power over Ethernet)	
7	Reset button	

**Note:**

Press RESET for about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

## 1.2 Type II Camera for Outdoor Scenario

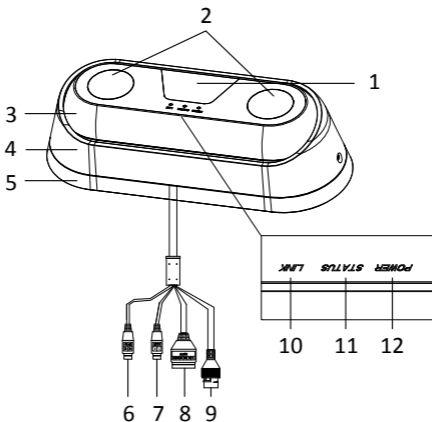


Figure 1-2 Overview of Type II Camera

Table 1-2 Description of Type II Camera

No.	Description
1	IR
2	Lens
3	Camera body

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No.	Description	
4	Enclosure	
5	Mounting base	
6	RS-485	
7	Power cord (12 VDC)	
8	Alarm I/O	
9	RJ45 Ethernet interface	
10	Link indicator	Flashing yellow: normal network communication
		Off: no network communication
11	Status indicator	Solid green: working properly
		Off when the people counting function is in the following conditions: 1) off; 2) abnormal shutdown; 3) abnormal heartbeat.
12	Power indicator	Solid red: working properly
		Off: power supply abnormal

### 1.3 Type III Camera for Mobile Scenario

This camera type has different cable groups for different models. The following figure shows both cable groups.

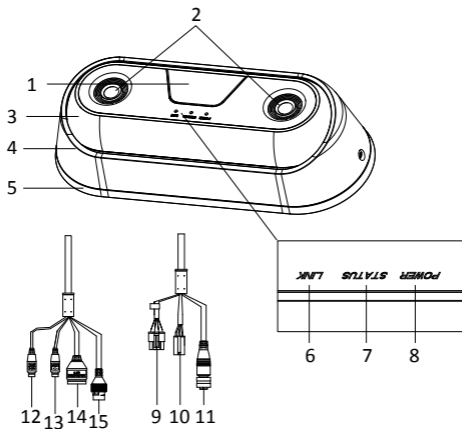


Figure 1-3 Overview of Type III Camera

Table 1-3 Description of Type III Camera

No.	Description
1	IR
2	Lens

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No.	Description	
3	Camera body	
4	Enclosure	
5	Mounting base	
6	Link indicator	Flashing yellow: normal network communication
		Off: no network communication
7	Status indicator	Solid green: working properly
		Off when the people counting function is in the following conditions: 1) off; 2) abnormal shutdown; 3) abnormal heartbeat.
8	Power indicator	Solid red: working properly
		Off: power supply abnormal
9	Alarm I/O, RS-485	
10	Power cord (12 VDC)	
11	M12 aviation plug	
12	RS-485	
13	Power cord (12 VDC)	
14	Alarm I/O	
15	RJ45 Ethernet interface	



**Note:**

- One camera has one cable group.
- The relation between RJ45 wire and M12 wire is shown in the following figure and table.

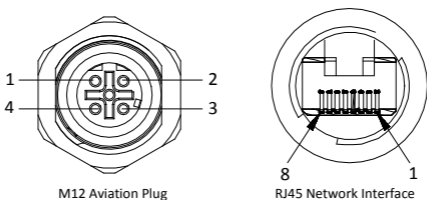


Figure 1-4 RJ45 Interface and M12 Aviation Plug

Table 1-4 Wire Relation

	M12 Wire	RJ45 Wire
TX+	1	1
TX-	3	2
RX+	2	3
RX-	4	6

## 2 Installation

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### *Before you start:*

- Make sure the device in the package is in good condition and all the assembly parts are included.
- The standard power supply is 12 VDC, please make sure your power supply matches with your camera.
- Make sure all the related equipment is power-off during the installation.
- Check the specification of the products for the installation environment.
- Make sure that the ceiling is strong enough to withstand four times the weight of the camera and the bracket.

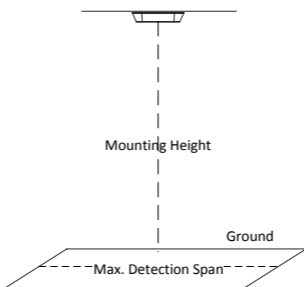
### 2.1 Type I Camera Installation

#### *Steps:*

1. Select a suitable mounting position.

The relations among focal length (for the focal length of your camera, see the label on camera body), mounting height, and maximum detection span are shown in the following table.

Table 2-1 Installation Recommendation



Focal Length (mm)	Mounting Height (m)	Max. Detection Span (m)
2.0	2.5	1.8
2.0	3.0	2.9
2.0	3.5	4.0
2.0	4.0	5.2
2.8	3.0	2.2
2.8	3.5	3.1
2.8	4.0	4.0
2.8	4.5	4.8
2.8	4.7	5.2
4.0	4.0	2.8
4.0	4.5	3.4
4.0	5.0	4.0
4.0	5.5	4.6
4.0	6.0	5.2

### Notes:

- Mounting height of 2.0 mm lens camera should be no higher than 4 meters, and 2.8 mm lens camera no higher than 4.8 meters.
- The camera must be installed on a flat surface parallel to the ground (or, the optical axes of both lenses should be perpendicular to the ground).
- It is recommended to install the camera at an entrance/exit, where the detection area can be covered better.

2. Paste the drill template to the desired mounting place.

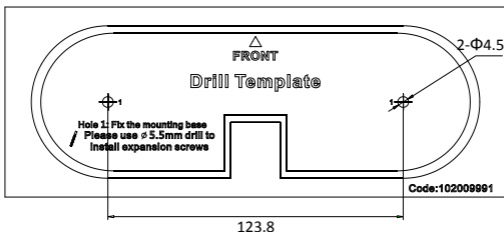


Figure 2-1 Drill Template of Type I Camera

3. Align the "Front" mark on drill template with that on mounting base. Fix the mounting base with supplied screws.

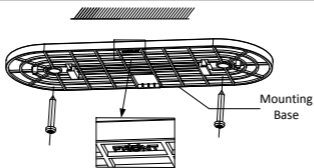


Figure 2-2 Fix the Mounting Base

4. Align the "Front" mark on the mounting base with that on camera bottom.
5. Fit the hooks on mounting base in the big end of the slots on camera bottom. Push to get the camera clasped.

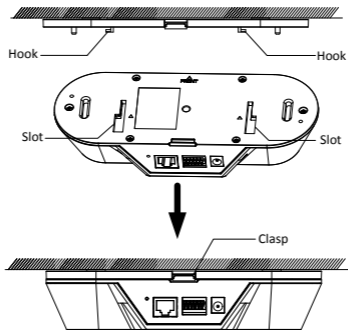


Figure 2-3 Install the Camera

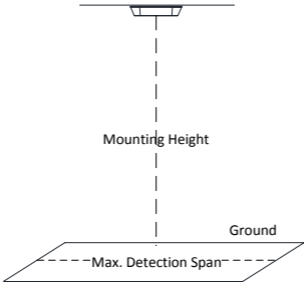
## 2.2 Type II Camera Installation

### Steps:

1. Select a suitable mounting position.

The relations among focal length (for the focal length of your camera, see the label on camera body), mounting height, and maximum detection span are shown in the following table.

Table 2-2 Installation Recommendation



Focal Length (mm)	Mounting Height (m)	Max. Detection Span (m)
2.8	3.0	2.2
2.8	3.5	3.1
2.8	4.0	4.0
2.8	4.5	4.8
2.8	4.7	5.2
4.0	4.0	2.8
4.0	4.5	3.4

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Focal Length (mm)	Mounting Height (m)	Max. Detection Span (m)
4.0	5.0	4.0
4.0	5.5	4.6
4.0	6.0	5.2

### Notes:

- Mounting height of 2.8 mm lens camera should be no higher than 4.8 meters.
- It is recommended to install the camera at an entrance/exit, where the detection area can be covered better.

### 2. Paste the drill template.

#### Note:

Pay attention to "The Lens" mark on the template, which stands for the direction at which the camera lens can be adjusted.

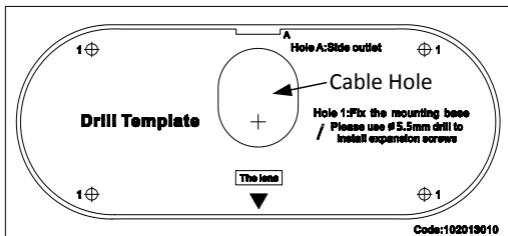


Figure 2-4 Drill Template of Type II Camera

### 3. Drill screw holes (if you use expansion screws) and plan cable routing.

### Notes:

- If you install the camera on a wooden surface, use self-tapping screws. If you install the camera on a cement surface, use expansion screws.
  - If you route the cable through the ceiling, cut a cable hole in advance.
4. Loosen the screws and remove the enclosure of the camera.

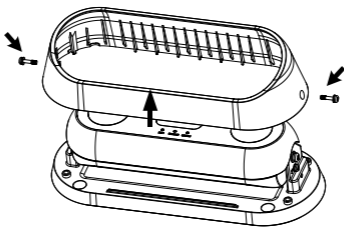


Figure 2-5 Remove the Enclosure

5. Attach the silicone pad to the mounting base of the camera.
6. Route the cable. Screw the camera and the silicone pad to the mounting place with 4 supplied screws.



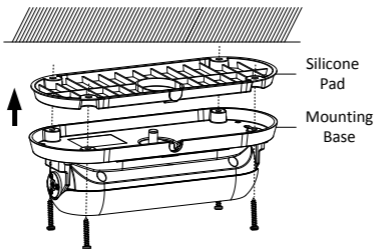


Figure 2-6 Fix the Camera

7. Adjust tilting position of the lens.

- 1). Loosen screw 1 and screw 2.

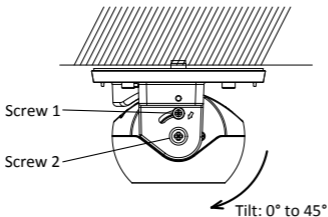


Figure 2-7 Adjust Tilting Position

- 2). Adjust the tilting position to make the lens directly face the ground.

**Note:**

To get better counting accuracy, the lens panel should parallel to the ground (or, the optical axes of both lenses should be perpendicular to the ground).

- 3). Tighten the two screws.
8. Install the enclosure back and tighten the screws.

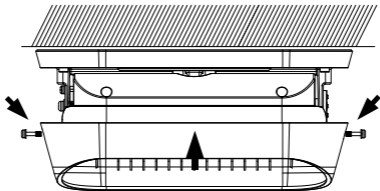


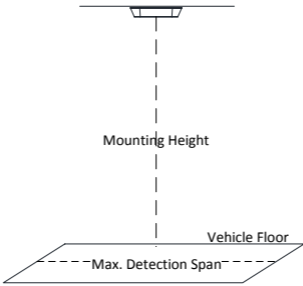
Figure 2-8 Install the Enclosure Back

## 2.3 Type III Camera Installation

**Steps:**

1. Select a suitable mounting position.

Table 2-3 Installation Recommendation



Focal Length (mm)	Mounting Height (m)	Max. Detection Span (m)
2.0	2.3	1.3
2.0	2.5	1.8
2.0	3.0	2.9

**Notes:**

- The camera should be installed at 2.1 to 3.0 meters height above the first step of the entry/exit area of the vehicle if several steps are available.
- It is recommended to install the camera at an entrance/exit, where the detection area can be covered better.

2. Paste the drill template.

**Note:**

Pay attention to "The Lens" mark on the template, which stands for the direction at which the camera lens can be adjusted.

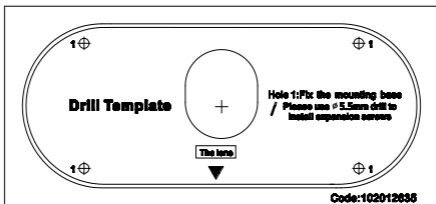


Figure 2-9 Drill Template of Type III Camera

3. Drill screw holes (if expansion screws are used) and cable hole according to the drill template.
4. Loosen the screws and remove the enclosure of the camera.

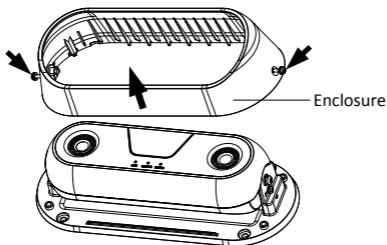


Figure 2-10 Remove the Enclosure

5. Attach the shock-absorbing pad to the mounting base of the camera.

**Note:**

Two kinds of shock-absorbing pads are included in the package.

- If you install the camera on a flat surface, use the silicone pad.

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- If you install the camera on a curved surface, use the EVA pad.

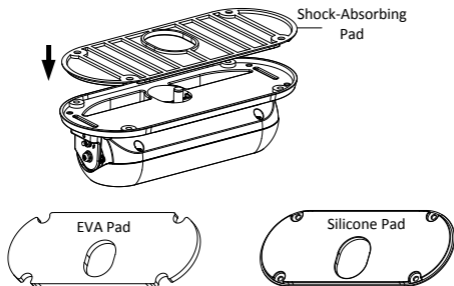


Figure 2-11 Attach Shock-Absorbing Pad

6. Route the cable and screw the camera and the shock-absorbing pad to the mounting place with 4 supplied screws.

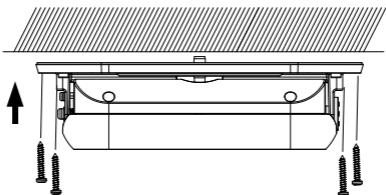


Figure 2-12 Fix the Camera

7. Adjust tilting position of the lens.

- 1). Loosen screw 1 and screw 2.

- 2). Adjust the tilting position to make the lens directly face the ground.

**Note:**

To get better counting accuracy, the lens panel should parallel to the ground (or, the optical axes of both lenses should be perpendicular to the ground).

- 3). Tighten the two screws.

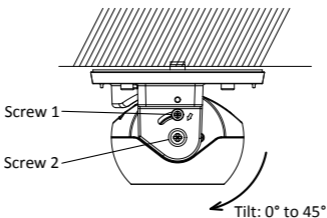


Figure 2-13 Adjust Tilt Position

8. Install the enclosure back and tighten the screws.

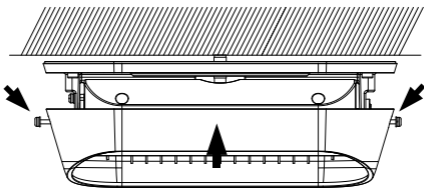


Figure 2-14 Install the Enclosure Back

## 3 Setting the Network Camera over the LAN

### Note:

You shall acknowledge that the use of the product with Internet access might be under network security risks. For avoidance of any network attacks and information leakage, please strengthen your own protection. If the product does not work properly, please contact with your dealer or the nearest service center.

### 3.1 Wiring

Connect to the camera to the network according to the following figures.

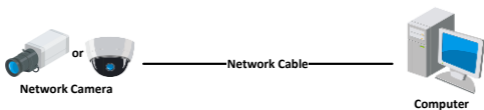


Figure 3-1 Connecting Directly

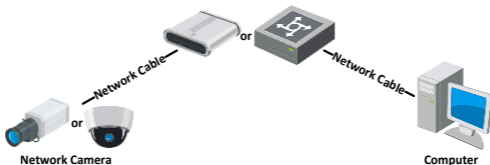


Figure 3-2 Connecting via a Switch or a Router

## 3.2 Activating the Camera

You are required to activate the camera first by setting a strong password for it before you can use the camera.

Activation via Web Browser, Activation via SADP, and Activation via Client Software are all supported. We will take activation via SADP software and Activation via Web Browser as examples to introduce the camera activation. Please refer to the *User Manual of Network Camera* for Activation via Client Software.

### 3.2.1 Activation via Web Browser

**Steps:**

1. Power on the camera. Connect the camera to your computer or the switch/router which your computer connects to.
2. Input the IP address into the address bar of the web browser, and click Enter to enter the activation interface.

**Notes:**

- The default IP address of the camera is 192.168.1.64.
- The computer and the camera should belong to the same subnet.
- For the camera with the DHCP enabled by default, you need to use the SADP software to search the IP address.



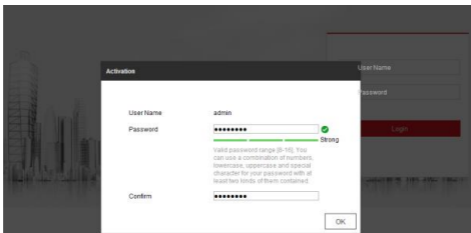


Figure 3-3 Activation Interface (Web)

3. Create a password and input the password into the password field.



**STRONG PASSWORD RECOMMENDED**— *We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.*

4. Confirm the password.
5. Click **OK** to save the password and enter the live view interface.

### 3.2.2 Activation via SADP Software

SADP software is used for detecting the online device, activating the camera, and resetting the password.

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Get the SADP software from the supplied disk or the official website, and install the SADP according to the prompts. Follow the steps to activate the camera, please refer to the *User Manual of Network Camera* for other two activation methods.

### Steps:

1. Run the SADP software to search the online devices.
2. Check the device status from the device list, and select the inactive device.

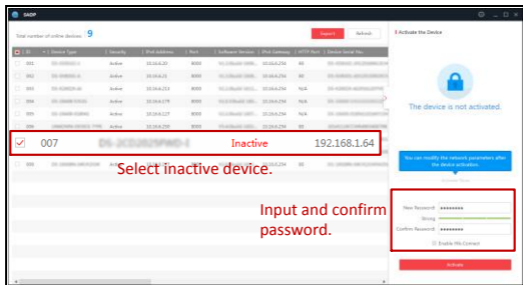


Figure 3-4 SADP Interface

### Note:

The SADP software supports activating the camera in batch. Please refer to the user manual of SADP software for details.

3. Create a password and input the password in the password field, and confirm the password.



**STRONG PASSWORD RECOMMENDED**– *We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.*

4. Click **Activate** to start activation.

You can check whether the activation is completed on the popup window. If activation failed, please make sure that the password meets the requirement and try again.

### 3.3 Modifying the IP Address

#### ***Purpose:***

To view and configure the camera via LAN (Local Area Network), you need to connect the network camera in the same subnet with your PC.

Use the SADP software or client software to search and change the IP address of the device. We take modifying the IP Address via SADP software as an example to introduce the IP address modification.

For IP address modification via client software, refer to the user manual of client software.

#### ***Steps:***

1. Run the SADP software.
2. Select an active device.

3. Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking **Enable DHCP**.

### Modify Network Parameters

Enable DHCP

Device Serial No.:

IP Address:

Port:

Subnet Mask:

Gateway:

IPv6 Address:

IPv6 Gateway:

IPv6 Prefix Length:

HTTP Port:

---

Security Verification

Admin Password:

[Forgot Password](#)

Figure 3-5 Modify the IP Address

4. Input the admin password and click **Modify** to activate your IP address modification.

The batch IP address modification is supported by the SADP; please refer to the *User Manual of SADP* for details.

## 4 Accessing via Web Browser

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### **System Requirement:**

Operating System: Microsoft Windows XP SP1 and above version

CPU: 2.0 GHz or higher

RAM: 1G or higher

Display: 1024×768 resolution or higher

Web Browser: Internet Explorer 8.0 and above version, Apple Safari 5.0.2 and above version, Mozilla Firefox 5.0 and above version and Google Chrome 18 and above version

### **Steps:**

1. Open the web browser.
2. In the browser address bar, input the IP address of the network camera, and press the **Enter** key to enter the login interface.

#### **Note:**

- The default IP address is 192.168.1.64.
  - If the camera is not activated, please activate the camera first according to Section 3.2.
3. Input the user name and password.

The admin user should configure the device accounts and user/operator permissions properly. Delete the unnecessary accounts and user/operator permissions.

#### **Note:**

The device IP address will be locked after 7 consecutive failed login attempts (5 for the user/operator).

- Click **Login**.

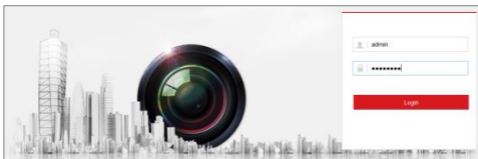


Figure 4-1 Login Interface

- Install the plug-in before viewing the live video and managing the camera. Please follow the installation prompts to install the plug-in.

**Note:**

Close the web browser to finish the installation of the plug-in.

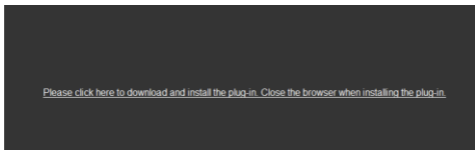


Figure 4-2 Download Plug-in

- Reopen the web browser after the installation of the plug-in and repeat steps 2 to 4 to log in.

**Note:**

For detailed instructions of further configuration, please refer to the *User Manual of Network Camera*.



First Choice for Security Professionals